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Fifth

QUARTERLY REPORT

period ending March 31, 1982

for

NASA Contract NAS 5-26425

"Use of MAGSAT anomaly data for crustal structure
and mineral resources in the U.S. Midcontinent"

from

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TYPE II

Quarterly Report

Work is continuing on the project, along the lines of the efforts described in our two previous quarterly reports.

A research assistant who was with the state Geological Survey and did excellent computer processing of our Magsat data for his thesis, graduated and left for the lush green fields of the oil industry last December. He has now apparently seen the error of his ways, and may be returning to our State Survey shortly. If so, we hope to again have the benefit of his services in processing and analysing the data tapes. We are engaging others to do similar and related work.

We are now beginning to proceed into the interpretation phase of the satellite-data study. That is, the crustal geology, structure, and potential economic consequences to be deduced from the Magsat magnetic anomalies in conjunction with correlative data. For the economic/resources aspect, we were intending to avail ourselves of the expertise of an economic geologist specialist here. Our in-house economic geologist left, and we have just completed our search for a replacement; I've been chairing the department's search and hiring committee. The acceptance has not yet been finalized, but we expect the new person (a Univ. Calif./Berkeley Ph.D., via a mining company) to be on board before Fall.

An interesting and useful exercise has been reviewing a variety of manuscripts on Magsat topics for the journal "Geophysical Research Letters". We also greatly appreciate, and are always very interested to receive, the magnetic anomaly maps being distributed by Goddard periodically.